

# **MORTGAGE DELINQUENCY RATES FOR PORTFOLIO LENDERS**

**Some Factors to Consider**

## INTRODUCTION

Thrifts are home mortgage specialists. Yet thrifts have a higher rate of seriously delinquent mortgages than the 23 million mortgages tracked by the Mortgage Information Corporation (MIC). As of March 1997, 1.11% of home mortgages held by thrifts are more than 90 days past due or in default. Only 1% of the mortgages in the MIC database are seriously delinquent. This second issue of *Mortgage Market Trends* examines some of the reasons why thrifts have, and are likely to continue to have, higher mortgage delinquency rates than the MIC national average, and whether this should be a cause for concern.

The mortgage market has changed dramatically over the last decade. As recently as 1988, the thrift industry originated almost half of all home mortgages. The rapid expansion of government-sponsored enterprises (GSEs -- Fannie Mae and Freddie Mac), and the development of secondary markets for home mortgage loan pools have enabled mortgage originators to sell their mortgages as soon as they are closed. In other words, mortgage originators no longer have to hold the loans they make. This separation of functions has had a profound effect on the mortgage market. Mortgage companies, which tend to originate but not hold mortgages, now dominate the origination market.

The sale and securitization of mortgages depend on predictable cashflows generated from pools of homogeneous loans -- loans similar in terms, characteristics, and risks. As a result, only a portion of home mortgages is readily saleable -- primarily plain vanilla thirty-year, fixed rate, conforming (to the specifications set by the GSEs) mortgages. These low-risk mortgages dominate the portfolios held by the GSEs and represent a large majority of the mortgages tracked by MIC.

Thrifts and banks, as portfolio lenders, are not restricted to low-risk mortgages that can easily be sold into the secondary market. They can originate adjustable-rate mortgages (ARMs), jumbo mortgages (those over the conforming loan limit set by Fannie Mae and Freddie Mac, currently \$214,600), and special program loans, among others. In this issue, we will explore how the characteristics of the mortgage portfolios held by FDIC-insured institutions (depositories), especially adjustable-rate mortgages, affect their current credit risk exposure, with an emphasis on thrifts.

## CURRENT MORTGAGE MARKET CONDITIONS

### Market Share Changes

Portfolio lenders have been an important segment of the mortgage market. However, the continuing rapid consolidation in the banking industry has changed the relative market shares of banks and thrifts. The second quarter of 1997 witnessed the largest transfer of thrift assets (FDIC-supervised Savings Banks

and OTS-regulated thrifts) to the commercial banking sector ever. The thrift industry lost 34 institutions, declining to a total of 1,852 institutions, 1272 of which were OTS-regulated. During the quarter, commercial banks acquired 18 thrifts with assets of \$10.5 billion. Eleven thrifts, with \$9.8 billion in assets, converted to commercial bank charters. Five thrifts were acquired by other thrifts. Since the August 1996 tax law change concerning bad-debt reserves, 81 thrifts with almost \$55 billion in assets have migrated to the commercial banking industry.

Given the ongoing consolidation of the industry, it is no surprise that the thrift industry continues to lose mortgage market share. Table 1 reports data on mortgage loan originations from HUD's *Survey of Mortgage Lending Activity*

**Table 1: Mortgage Origination Market Share**

Year	CB	Share	SB	Share	S&L	Share	MC	Share	Total
1996 Q1	\$43166	22.2%	\$6766	3.5%	\$28394	14.6%	\$114557	59.0%	\$194196
Q2	45927	22.0%	9120	4.4%	35064	16.8%	117583	56.2%	209140
Q3	42327	22.2%	9979	5.2%	30362	15.9%	106637	55.9%	190722
Q4	47128	24.6%	8036	4.2%	27895	14.6%	106962	55.9%	191271
1997 Q1	48116	27.2%	5651	3.2%	24953	14.1%	96969	54.8%	176877

Source: *Survey of Mortgage Lending Activity*, HUD

CB, Commercial Banks; SB, Savings Banks; S&L, OTS thrifts; MC, Mortgage Companies

(SMLA). In March 1997, the thrift industry's market share of single-family residential mortgages fell from 18.8% at year-end 1996 to 17.3% at the end of the first quarter 1997. Both mutual savings banks (4.2% to 3.2%) and savings & loan associations (14.6% to 14.1%) suffered declines in their market shares. In contrast, commercial banks enjoyed a substantial increase in market share, rising to 27.2% in March 1997 from 24.6% at year-end 1996. This may reflect, in part, commercial bank acquisitions of thrifts and their assets. The market share for mortgage banks fell slightly to 54.8%. Nonetheless, FDIC-insured portfolio lenders (banks and thrifts) still have more than 45% of the mortgage origination market.

## Current Mortgage Rates and Terms

While the SMLA shows market share, it does not show what types of mortgages are being made. The Federal Housing Finance Board conducts its *Mortgage Interest Rate Survey (MIRS)* monthly among mortgage lenders on the interest rates and terms of their recently closed mortgages. Table 2 reports the survey results for the months ending each quarter over the last year.

Table 2 shows that, for all three lender groups, the effective interest rates (which include the amortization of initial fees and charges over a ten-year period) on mortgages declined sharply in December 1996, only to rise over the first two quarters of this year. For S&Ls, the current average is 7.22%, for commercial banks, 7.86%, and for mortgage companies, 8.03%. The average effective interest rate was substantially lower for S&Ls than that for the commercial banks and mortgage companies in every month surveyed.

The data in Table 2 suggest two reasons for the lower effective interest rate on mortgages originated by S&Ls – ARMs and loan-to-value (LTV) ratios. Averaging the four monthly percentages reported in Table 2, more than half (53%) of the mortgages originated by S&Ls were adjustable rate mortgages, while for commercial banks it was 32%, and for mortgage companies only 16%. ARMs are mortgages where the borrower, rather than the lender, bears more interest rate risk. They typically carry a lower contract interest rate than fixed-rate mortgages, and thus a higher percentage of ARM originations by S&Ls would result in a lower average effective interest rate for S&Ls.

The distribution of originations by loan-to-value ratio categories also might affect differences in the effective interest rates between S&Ls and commercial banks and mortgage companies. Again using the averages of the four monthly percentages, S&Ls have a much smaller percentage of their loans in the highest LTV category (greater than 90% LTV ratio) than the two others -- 17% for S&Ls vs. 24% for commercial banks and 28% for mortgage companies. Higher LTV-ratio loans are riskier and should carry a higher rate and/or more fees and charges than lower LTV-ratio loans. The lower percentage of high LTV-ratio mortgages originated by S&Ls is offset primarily by the higher percentage of their mortgages in the 70-to-80% LTV category than for the commercial banks or mortgage companies.

**Table 2: Mortgage Rates and Terms**

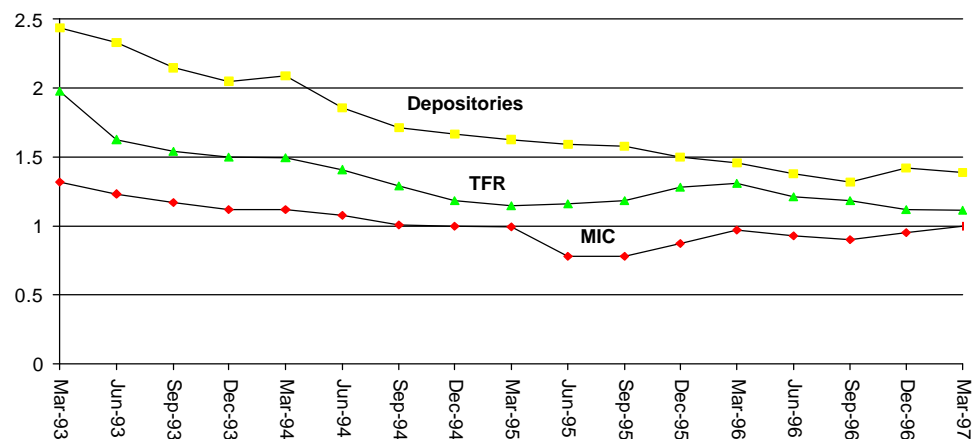
Month	Effective Rate	Percent of Loans by LTV Class				% Arms
		< 70%	70-80	80-90	> 90%	
<b>S&amp;Ls</b>						
Sep-96	7.43	23	42	18	18	59
Dec-96	7.16	21	46	16	17	52
Mar-97	7.34	21	47	16	16	46
Jun-97	7.22	22	45	16	17	56
<b>Commercial Banks</b>						
Sep-96	7.84	25	42	12	21	44
Dec-96	7.65	22	28	20	30	32
Mar-97	7.77	20	39	19	22	31
Jun-97	7.86	21	38	18	22	21
<b>Mortgage Companies</b>						
Sep-96	8.15	20	34	19	27	19
Dec-96	7.76	21	36	16	27	15
Mar-97	7.92	19	34	17	30	14
Jun-97	8.03	18	36	17	28	16
Source: Mortgage Interest Rate Survey, Federal Housing Finance Board						

These two factors, the percentage of ARMs and LTV-ratio distribution, likely affect the performance of the mortgage portfolios held by S&Ls and commercial banks. Before pursuing this, we first present an overview of current national delinquency trends.

## NATIONAL DELINQUENCY RATES RISE SLIGHTLY

Figure 1 plots the percentage of seriously delinquent (90 days past-due or in foreclosure) residential mortgages, using both the MIC and Thrift Financial Report (TFR) data. Since the first issue of the *Mortgage Market Trends*, we have divided the MIC data into two categories: the market, which includes all twenty-six MIC participants, and a subgroup, the depository institutions, which includes only the FDIC-insured MIC participants (a mix of both S&Ls and commercial banks). As the trend lines in Figure 1 show, the national delinquency rate increased slightly in the first quarter of 1997. In contrast, both the MIC depository and OTS-regulated (TFR) thrift delinquency rates fell slightly. The TFR rate excludes one thrift that specializes in delinquent loans. Figure 1 also shows that thrifts, as well as depositories, have higher delinquency rates than the national average for the entire historical period.

**Figure 1: Percentage of Seriously Delinquent Mortgages**



Source: MIC and TFR. *MIC* contains the combined data of the depository and non-depository participants in MIC's Loan Performance System. *Depositories* comprise both bank and thrift MIC participants. The thrift MIC participants are very large institutions located primarily on the East and West coasts. *TFR* represents all OTS-regulated institutions. Because of their size and location, the performance of MIC thrift participants differs significantly from the average OTS-regulated thrift.

## RISK FACTORS

### Loan-to-Value Ratios

Mortgage delinquency rates might differ among groups of lenders for several reasons. The lenders may have different underwriting standards and skills. They also may hold different portfolios. As a result, the risk characteristics of the loan portfolios could differ substantially, resulting in sharply different credit risk and thus, delinquency rates. Such characteristics as the LTV ratio, product type (ARM

vs. fixed-rate), loan size (conforming vs. non-conforming), loan vintage, and location of the property securing the mortgage (e.g., a concentration in areas with slow growing or falling real estate prices) could vary substantially for each group. As these factors vary, so will the performance of the loan portfolio over time.

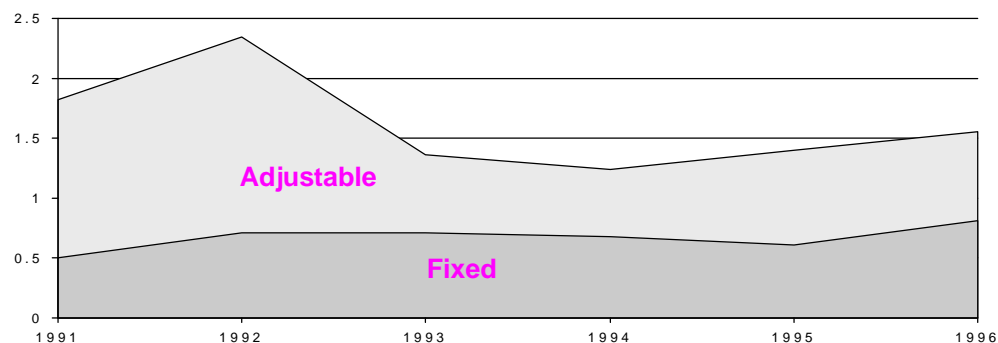
It has been well documented that the LTV ratio explains more of the variation in delinquency rates than any other factor. Delinquencies increase sharply as the LTV ratio goes up, especially after it reaches 95%. As shown in the first issue of *Mortgage Market Trends*, high LTV-ratio mortgages have delinquency rates more than sixteen times greater than low LTV-ratio mortgages (less than 60% LTV ratios). The higher delinquency rates for depositories might reflect a higher average LTV.

While the loan-to-value ratio at the time of the mortgage origination is a useful indicator of credit risk exposure, the actual LTV ratio, based on the current market value of the home, most heavily influences the default decision. Current market LTV ratios are not usually available. The home price appreciation index (shown on the first table in the attached appendix) calculated by the Office of Federal Housing Finance Enterprise Oversight (OFHEO) provides useful additional information. The correlation coefficient between the rate of seriously delinquent mortgages for depositories and the three-year price appreciation rate on a state-by-state basis is a surprisingly large -0.74. In other words, strong home price appreciation is associated with low delinquency rates and vice versa. This suggests that local real estate market information is critical in the assessment of credit risk exposure.

### Adjustable-Rate Mortgages

Along with LTV ratio, mortgage product type affects credit risk, with ARMs being more risky than fixed-rate mortgages. The *MIRS* data show that ARM originations vary from about a quarter to a third of all originations. Yet, according to recent Consolidated Maturity/Rate Schedule filings, 66% of thrift mortgage portfolios are ARMs. Thrift ARM holdings are about evenly split between COFI ARMs and other types of ARMs, primarily constant maturity Treasury (CMT) ARMs.

**Figure 2: Percentage Seriously Delinquent – Adjustable vs. Fixed Rate**



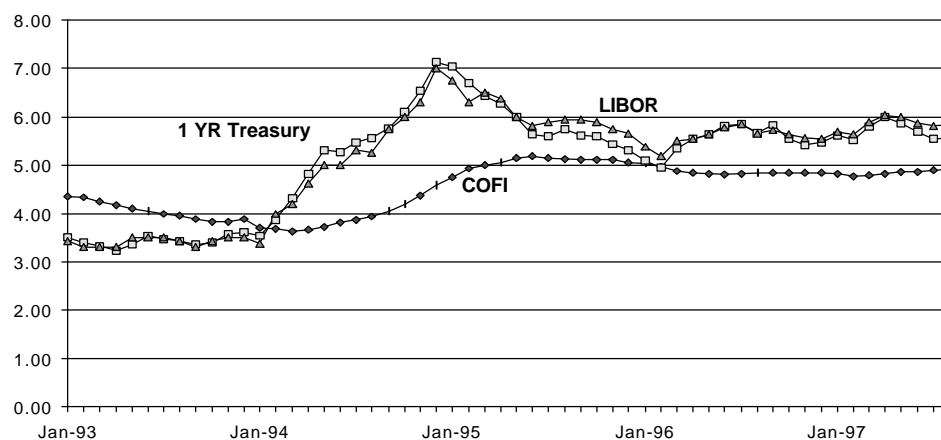
Source: MIC

As Figure 2 shows, variable-rate mortgages have higher delinquency rates than fixed-rate mortgages, often more than twice as high. Adjustable-rate mortgages have principal and interest payments that change because the underlying interest rate index on which they are based changes. If the interest rate index has risen by the time payments are reset, borrowers face payment shock, the primary additional risk of ARMs. For a variety of reasons, borrowers may not be able to change their spending habits to adjust to the higher level of payments now required. Payment shock increases the risk of adjustable-rate mortgages.

All else being equal, the willingness of the adjustable-rate borrower to bear the risk of payment shock due to possible interest rate changes suggests that he/she is less risk averse than the fixed-rate borrower. The choice of an adjustable-rate mortgage may also indicate that such a borrower has a shorter time horizon, as lower payments are likelier to occur earlier in the life of an ARM, making them more attractive to those who might be more transient. Such factors can affect the credit risk of adjustable-rate mortgages.

Popular interest rate indices include the 11<sup>th</sup> District Cost of Funds Index (COFI), 1 year constant maturity Treasury index, and the six-month London Interbank Offered Rate (LIBOR). As payment shock is the primary additional risk of adjustable-rate mortgages, the volatility of these indices will affect their risk. Figure 3 shows how the indices have changed over the last four years. The 11<sup>th</sup> District COFI has the least volatility, as it is a weighted average of the cost of funds of various maturities, some of which may be considerably longer than six months or a year.

**Figure 3: Adjustable-Rate Mortgage Indices**



The standard deviation, a common measure of volatility, of the COFI index over this time period was 0.5, whereas for the six month LIBOR and 1 year constant maturity Treasury (CMT) indices, the standard deviations were more than twice as large, 1.08 and 1.09. While the lower volatility of the COFI index would suggest that ARMs based on it would have fewer large payment shocks, those

that occur tend to persist longer than for the other indices, leaving the relative payment shock risk for COFI ARMs ambiguous.

Note that since March 1995, all three indices, especially the COFI index, have been relatively constant. Since March 1995, the standard deviation of the COFI index has fallen by more than two-thirds, to 0.135; for the 1 year CMT, to 0.30, and for LIBOR, to 0.26. This recent calm period has resulted in fewer payment shocks, and thus should have led to lower delinquencies for ARMs.

Flat interest rates should also lower delinquencies relative to a rising interest rate environment, as the LTV ratios of ARMs that permit negative amortization would be lower than otherwise. Negative amortization occurs when the interest due is greater than the interest paid. The difference is added to the principal amount of the loan. Such can be the case in those ARM contracts that have a cap on the payment adjustment but not on the interest rate adjustment, or when the interest rate adjustment and the payment adjustment are on different schedules.

Thus, flat interest rates should have resulted in lower delinquencies. However, as Figure 2 shows, such has not been the case. In the next section, we consider in more detail differences in the portfolio composition that may explain the seemingly anomalous result.

## PORTFOLIO COMPOSITION DIFFERENCES

As was discussed in the introduction, depositories are likely to hold mortgage portfolios that differ from the mortgage pools that are sold into the secondary market. Table 3 reports the percentage breakdown by product type of the two mortgage portfolios tracked by MIC, the depository subgroup and all participants, based on the mortgages held in March 1997. The reported percentages are based on the dollar value of residential loans held in the portfolios and may not sum to 100% due to rounding and incomplete data.

**Table 3: Portfolio Composition (%'s) – Fixed vs. Variable**

	Northeast		Southeast		Central		Midwest		West		National	
Terms	Market	Depos.	Market	Depos.	Market	Depos.	Market	Depos.	Market	Depos.	Market	Depos.
Fixed 15	20.05	16.37	18.06	14.40	25.00	17.52	20.91	17.25	12.21	9.40	18.00	13.27
Fixed 30	61.42	55.16	60.08	56.29	56.57	56.14	64.27	62.78	50.47	40.06	56.76	50.00
Variable	15.78	26.43	17.97	28.16	11.26	23.71	11.10	19.22	32.15	48.42	20.83	34.86
Balloon	1.79	1.44	3.15	1.04	5.84	2.44	2.75	0.98	4.19	1.29	3.63	1.39
Neg. Am	1.93	4.03	2.72	5.51	1.25	3.83	1.57	3.00	11.99	19.26	5.46	10.57
No Neg.	15.73	25.98	17.11	22.74	11.60	20.00	10.83	16.15	21.30	29.91	16.68	25.30
T Bill	12.62	19.85	13.53	18.78	9.27	17.14	8.32	13.44	12.09	17.19	11.73	17.50
COFI	1.35	2.75	2.34	4.75	1.17	3.60	1.39	2.81	12.44	20.01	5.39	10.45

Source: MIC

Several observations can be drawn based on the information presented in Table 3. First, the proportion of variable-rate mortgages held by depositories (35%) is almost twice as large as it is for the market. Variable-rate mortgages have substantially higher delinquency rates than fixed-rate mortgages. As discussed



earlier, variable-rate mortgages accounted for 66% of the mortgage loans held by thrifts in their portfolios in March 1997. This percentage is almost twice as large as the percentage of variable-rate mortgages held by depositories in the MIC data.

ARMs are most popular in the West Region, where almost half (48.4%) of the mortgages held by depositories have variable rates. Nineteen percent of the depository West region mortgages can negatively amortize. These products are the riskiest of the ARMs.

In the Central Region, the ARM portion for depositories (23.71%) is more than double that of the market as a whole (11.26%). The actual difference between depositories and non-depositories is even much larger, as the market percentage represents the combined total of both the depositories and the non-depositories. The data in Table 3 also show that the T-bill ARMs are much more prevalent (4 to 9 times higher) in all regions of the country except for the West Region, where COFI ARMs are just slightly more popular.

**Table 4: Portfolio Composition by LTV Ratio**

	Northeast		Southeast		Central		Midwest		West		National	
	Market	Depos.	Market	Depos.	Market	Depos.	Market	Depos.	Market	Depos.	Market	Depos.
<b>LTV</b>												
20-60	18.91	16.58	12.05	10.22	15.84	11.38	10.02	8.51	17.36	15.05	15.65	13.33
61-70	14.35	13.75	11.37	10.31	14.03	11.23	10.73	9.30	14.48	13.96	13.47	12.45
71-75	14.21	14.32	12.00	10.88	14.96	11.74	11.34	9.70	14.62	13.92	13.83	12.74
76-80	22.01	22.70	21.14	20.25	21.97	19.98	22.00	19.67	24.56	26.40	22.57	23.21
81-90	15.96	15.66	16.47	15.06	15.52	15.65	17.22	15.57	14.24	14.31	15.78	14.97
91-95	7.76	6.27	11.75	10.06	9.32	9.20	13.02	10.73	6.19	5.25	8.37	7.33
96-105	3.51	5.92	10.13	16.73	5.54	14.58	9.49	16.92	5.09	6.81	6.48	10.35

Source: MIC

Table 4 shows the breakdown in portfolio percentages by LTV ratio. Depositories hold a higher proportion of high LTV-ratio (over 95%) mortgages across all five regions. Depositories carry more ARMs and high LTV mortgages than the market. This has resulted in more seriously delinquent mortgages for them. As of the end of March 1997, depositories had a 1.39% seriously delinquent rate, 1.00% for the market.

In the Central Region, depositories, relative to the market, hold more ARMs and more high LTV-ratio mortgages than they do in the other regions. Consistent with this higher relative risk profile, the seriously delinquent rate for the Central region for depositories, at 1.00%, is twice the Central region delinquency rate for the market, at 0.50%. The *Regional and State Analysis* table in the Appendix contains more detail on regional and state level delinquency rates.

**Table 5: Portfolio Composition by Type**

Type	Northeast		Southeast		Central		Midwest		West		National	
	Market	Depos.	Market	Depos.	Market	Depos.	Market	Depos.	Market	Depos.	Market	Depos.
Conv	93.98	90.30	83.73	74.29	91.33	77.67	83.52	71.66	92.51	90.17	89.80	83.89
VA	1.64	2.66	6.59	10.51	2.36	6.43	5.24	9.27	2.65	3.64	3.56	5.64
FHA	3.95	6.63	9.31	15.17	5.86	15.86	10.49	19.04	4.62	6.16	6.43	10.30

Source: MIC

Table 5 suggests that VA and FHA loans are a much larger presence in the Southeast, Central, and Midwest regions, averaging about 25% of the depository portfolios, than on either coasts, where they represent less than 10% of the portfolios. VA and FHA mortgages have delinquency rates that are almost four times higher than the rate for conventional mortgages (for March 1997, 3.06% of the VA/FHA loans were seriously delinquent versus 0.77% of the conventional mortgages).

Depositories' holdings of VA and FHA loans have grown rapidly since 1994. In December 1994, depositories' VA/FHA holdings were 5.9% of their total holdings (2.3% VA and 3.6% FHA). In March of 1997 their holdings were 15.9% (5.6% VA and 10.3% FHA), an almost 170% increase. Of the two, the FHA holdings showed the larger increase -- up 186%.

The FHA program has expanded so rapidly for a variety of reasons. In April 1994, the up-front premium dropped from 3% to 2.25%. In 1995, the maximum FHA loan amount was raised substantially and indexed to the GSE conforming loan limit. In 1996, the maximum loan amount was \$155,250. FHA interest rates have also become more competitive, especially for FHA adjustable-rate mortgages. Between 1995 and 1996, FHA contract rates fell from 8.41% for 30 year fixed rate mortgages to 7.70%; for adjustable-rate mortgages, they fell an even larger amount, from 7.21% to 6.27%.

The impact of changes in the VA/FHA programs can be seen in at least two places. First, although VA and FHA mortgages represent only 15.9% of all depository holdings, they represent 98.8% of the all depository holdings with LTV ratios greater than 95%. Second, the FHA ARM program changes are reflected in the increase in the variable-rate government-backed mortgages held by depositories. In December 1993, 4.6% of the FHA/VA mortgages held by depositories were adjustable rate. In December 1994, the percentage had risen to 7.2%. As of March 1997, more than 18.9% were adjustable rate, a four-fold increase since the end of 1993. More than 60% of the FHA/VA mortgages have LTV ratios greater than 95%. This mixture of high LTV loans and adjustable rates create a credit risk profile that is greater than the sum of the two risk components.

## HIGH LTV-RATIO AND VARIABLE-RATE MORTGAGES

Mortgages with LTV ratios greater than 95% are substantially more risky than lower LTV-ratio mortgages. Variable-rate mortgages are riskier than fixed-rate mortgages because of payment shock induced by changes in the underlying

index. The combination of the two risks exposes the lender to a higher level of risk than just the sum of the two factors because of their possible interaction. If jumps in interest rates are accompanied by an economic slowdown and/or slower house price appreciation, a borrower may be faced with a sizeable payment shock just when he or she may be unable (or unwilling) to absorb it.

As was illustrated in Figure 3, the common adjustable-rate indices have been unusually flat (and relatively low) over the last two years, resulting in few ARM payment shocks. Employment rates, economic growth, and home price appreciation has been generally favorable over the same period. As a result, fewer high LTV-ratio adjustable-rate mortgages have become delinquent. Such may not be the case in the future, should interest rates spike and/or the economy soften.

## CONCLUSION

In this issue, we have considered several factors that could account for the higher than average delinquency rates among depositories and thrifts. As portfolio lenders, they can and do hold portfolios different from the market as a whole. Portfolios composed of mortgages with higher LTV ratios and more adjustable-rates explain much of the differences between the depository delinquency rates and those of the overall market. The large percentage of FHA/VA Treasury-bill ARMs with high LTV loans appears to be another important factor.

What are the implications of this finding? The last two years have been an extremely benign period for mortgage credit risk, with both low, stable interest rates and generally rising home prices across the country. However, over the two-year span, depositories have sharply increased their holding of mortgages that combine adjustable rates and high LTV ratios. This combination makes such mortgages highly risky. Should the economy experience an interest rate spike accompanied by an economic slowdown, delinquencies and defaults on such mortgages would likely soar.

Most of these mortgages are insured by the Federal government under the FHA/VA programs, and thus pose much lower credit losses to the institutions that hold them. Nonetheless, their presence may well lead to higher future overall delinquency rates. Their presence also underscores for adjustable-rate mortgages the little-made connection between interest rate risk and credit risk. While adjustable-rate mortgages lower an institution's interest rate risk, they do raise its credit risk, especially for negatively amortizing and/or higher LTV-ratio adjustable-rate loans, as borrowers shoulder interest rate risk as well as normal credit risk.

Although OTS does not collect information on LTV, the TFR data show that the thrift industry does have two-thirds of its mortgage portfolio in ARMs, equally split between COFI and non-COFI ARMs. Some of the ARMs held by thrifts can negatively amortize. This high concentration of ARMs suggests higher delinquency rates for thrifts. Yet the *MIRS* data indicate that S&Ls, on average, originate lower LTV mortgages than their competition. As a result, thrift

delinquencies tend to run at a lower rate than the rate for the other depositories reported by the MIC system, especially during the recent calm interest-rate period.

As a final note, while adjustable-rate mortgages are riskier than fixed-rate mortgages, loan-to-value remains the dominant determinant of credit risk. The high correlation we found between home price appreciation and mortgage delinquency rates emphasizes the importance of local real estate market conditions in the determination of mortgage credit risk.

**Mortgage Market Trends**

**Volume 1 Issue 2**

**September 1997**

**Data Appendix**

**National and Regional Trends in Mortgage Delinquency Rates**

**as of March 31, 1997**

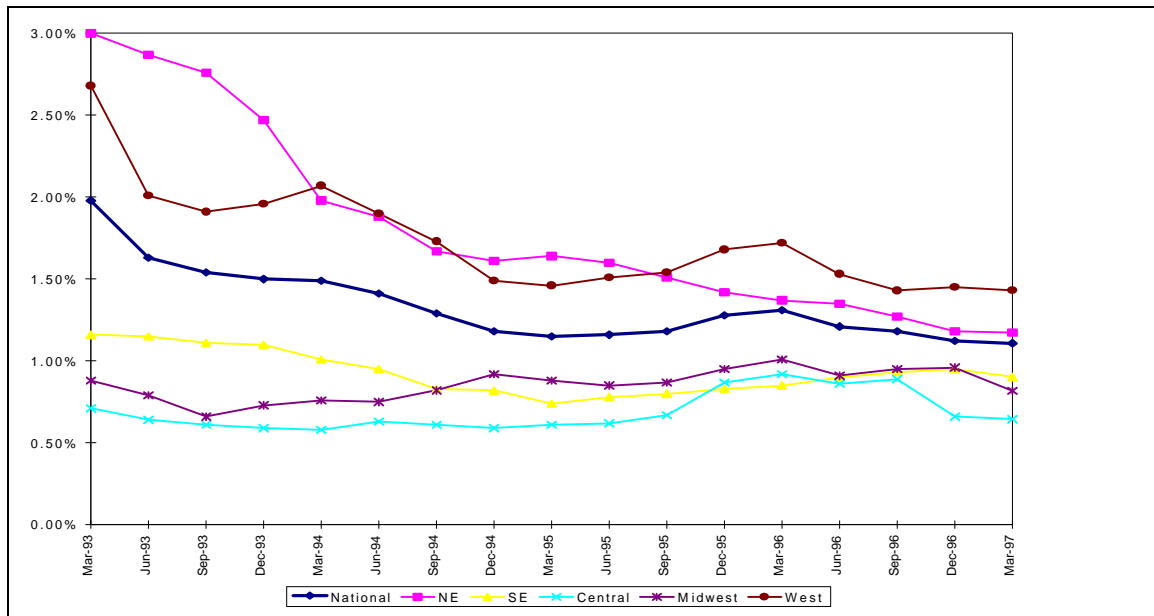
## Regional and State Analysis

Seriously Delinquent & Home Price Appreciation Rates  
(Based on \$)

	MIC SD		TFR SD	Home Price Appreciation	
Market	Depositories			96Q1-97Q1	94Q1-97Q1
<b>National</b>	<b>1.00</b>	<b>1.39</b>	<b>1.11</b>	<b>3.19</b>	<b>10.74</b>
<b>Northeast</b>	<b>1.32</b>	<b>1.88</b>	<b>1.17</b>		
Connecticut	1.34	1.71	1.05	-0.01	-0.50
Delaware	0.76	1.02	1.31	1.33	3.23
Maine	0.72	1.40	0.98	-0.47	2.80
Massachusetts	0.78	1.15	0.57	3.13	8.29
New Hampshire	0.66	1.17	0.63	2.18	4.72
New Jersey	1.66	2.14	1.43	0.36	2.31
New York	1.70	2.22	1.43	0.49	1.68
Pennsylvania	1.07	1.51	0.75	0.54	4.28
Rhode Island	0.82	1.44	2.60	-1.52	-0.68
Vermont	0.52	1.14	1.06	0.17	3.98
West Virginia	0.34	0.88	0.77	4.24	14.52
<b>Southeast</b>	<b>0.98</b>	<b>1.42</b>	<b>0.90</b>		
Alabama	0.54	1.07	0.76	4.18	14.11
DC	1.50	1.65	4.31	1.74	1.65
Florida	1.18	1.55	0.88	1.94	8.36
Georgia	0.77	1.20	0.70	4.28	12.61
Maryland	1.37	1.97	1.63	0.63	3.11
North Carolina	0.58	0.94	0.43	5.12	15.69
Puerto Rico	1.33	3.12	1.50	-	-
South Carolina	0.67	1.03	0.49	4.03	12.33
Virginia	0.84	1.24	0.76	1.54	5.77
<b>Central</b>	<b>0.50</b>	<b>1.00</b>	<b>0.88</b>		
Illinois	0.70	1.17	0.85	3.41	12.29
Indiana	0.44	1.00	0.71	5.71	16.98
Kentucky	0.38	0.73	0.58	5.04	16.90
Michigan	0.22	0.47	0.77	9.07	23.04
Ohio	0.50	1.02	0.55	5.42	16.47
Tennessee	0.78	1.35	0.52	5.19	17.49
Wisconsin	0.24	0.60	0.28	5.28	19.05
<b>Midwest</b>	<b>0.52</b>	<b>0.79</b>	<b>0.82</b>		
Arkansas	0.58	1.36	0.60	3.69	14.05
Colorado	0.29	0.41	0.14	5.49	22.67
Iowa	0.23	0.37	0.52	4.37	16.32
Kansas	0.36	0.67	0.31	3.83	15.42
Louisiana	0.79	1.35	0.45	3.83	14.68
Minnesota	0.43	0.54	0.33	4.70	15.83
Mississippi	0.62	1.84	1.05	3.56	13.84
Missouri	0.35	0.69	2.18	5.34	15.36
Nebraska	0.21	0.37	0.67	4.69	17.35
New Mexico	0.44	0.64	0.69	2.87	17.12
North Dakota	0.25	0.29	0.85	3.39	15.47
Oklahoma	0.62	1.21	1.01	4.62	12.94
South Dakota	0.36	0.48	0.49	2.40	14.07
Texas	0.75	1.09	1.09	0.99	6.19
<b>West</b>	<b>1.19</b>	<b>1.41</b>	<b>1.43</b>		
Alaska	0.41	0.84	-	2.18	11.85
Arizona	0.54	0.76	0.35	3.98	17.20
California	1.42	1.58	1.53	-0.87	-3.95
Hawaii	1.15	1.79	1.63	-7.03	-10.14
Idaho	0.47	0.79	0.30	4.26	18.89
Montana	0.45	0.64	0.17	5.00	21.19
Nevada	0.83	1.10	1.10	1.44	9.80
Oregon	0.25	0.33	0.60	8.42	27.95
Utah	0.37	0.68	0.74	7.86	33.03
Washington	0.52	0.75	0.36	2.64	11.11
Wyoming	0.28	0.35	0.39	2.79	18.56

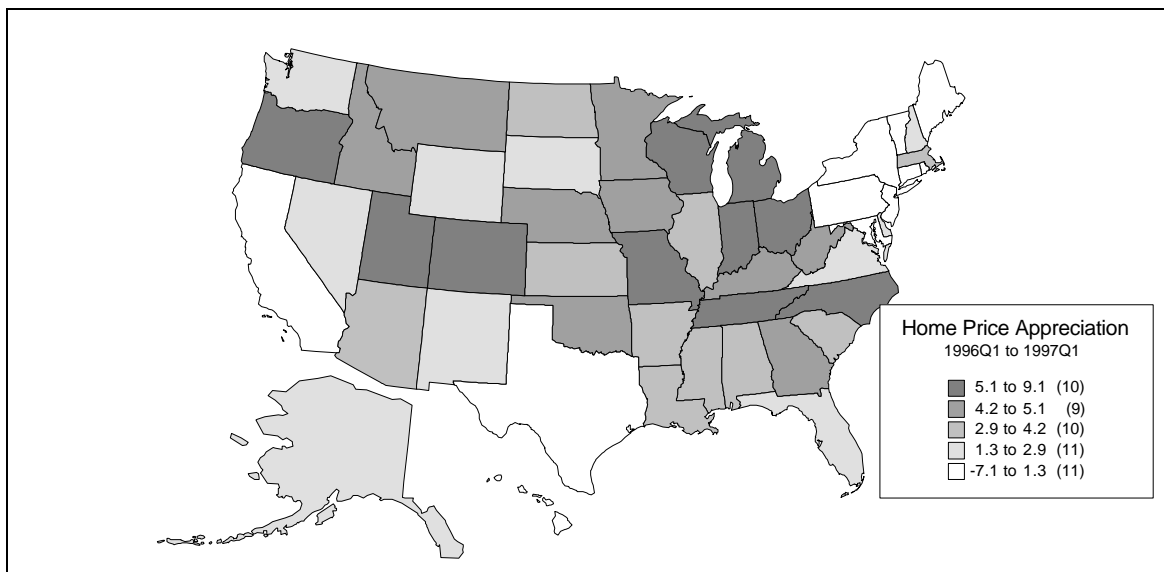
## OTS Regions Seriously Delinquent Mortgages (%)

Based on Thrift TFR Data by Location of Headquarters



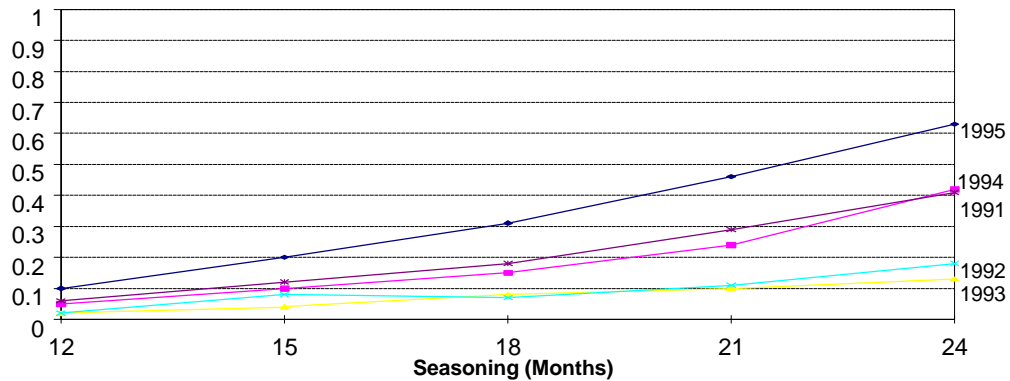
## Home Price Appreciation Yearly Rate March 1996 to March 1997

(Source: OFHEO Resale Database)



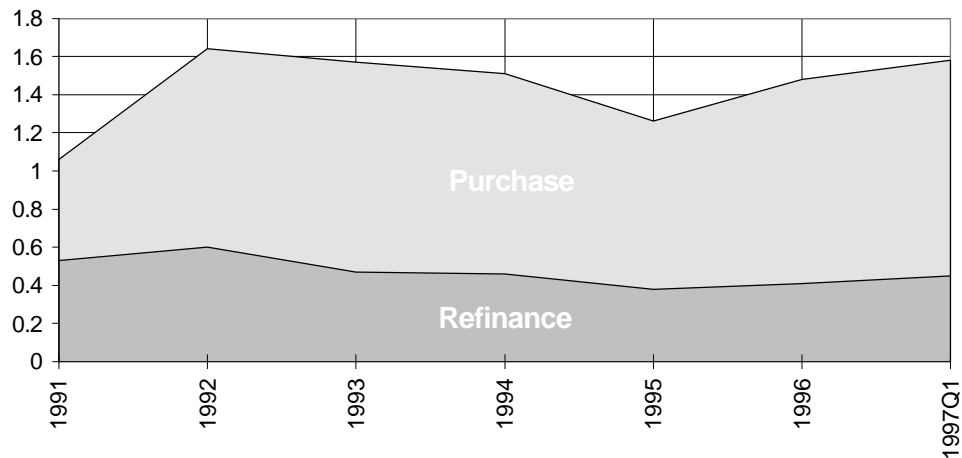
### National Cohort Performance by Vintage

(Source: MIC)



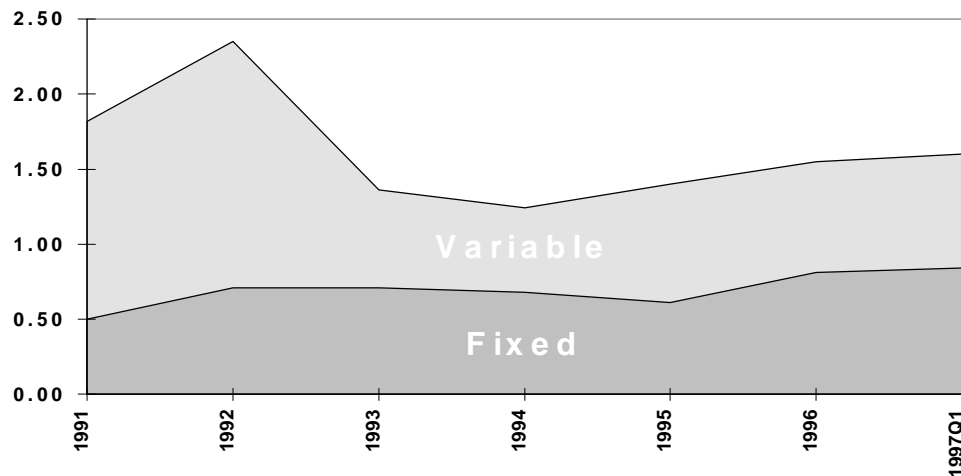
### Home Purchase Vs. Refinancing Mortgages

(Source: MIC, Seriously Delinquent Rate)



### Fixed Vs. Variable Rate Mortgages

(Source: MIC, Seriously Delinquent Rate)



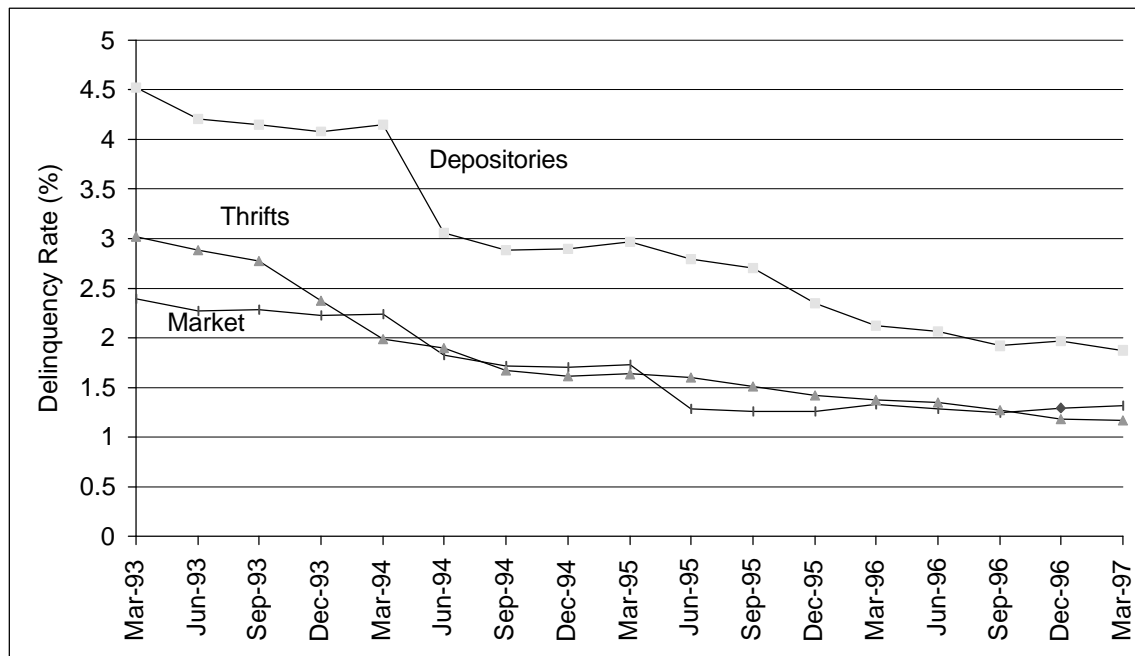


## Northeast Region Recent Developments

The delinquency rate for the market rose slightly in the Northeast Region between December 1996 and March 1997. Over the same period, the delinquency rate for depositories fell slightly. A small decline in the delinquency rate for thrifts was also evident. At the state level, New York had the highest depository delinquency rate, while the lowest rate was in West Virginia. The same was true for the market delinquency rates by state.

According to the April 1997 issue of the FDIC's *Survey of Real Estate Trends*, improvements in residential markets in the Northeast were substantial during the first quarter of 1997. In particular, increases in both home sales and median home sales prices occurred during the first quarter.

**Northeast Region**  
Percent of Mortgages Seriously Delinquent  
by Dollar Value  
(Source: MIC, TFR)

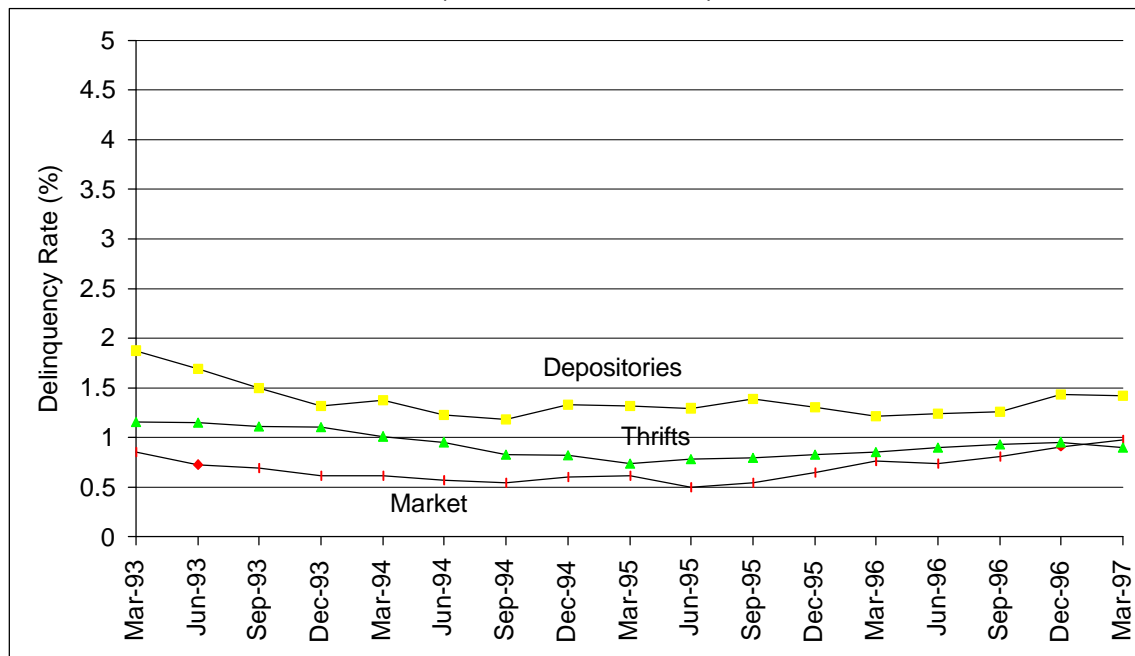


## Southeast Region Recent Developments

The delinquency rate for the market rose slightly in the Southeast Region between December 1996 and March 1997. Over the same period, the delinquency rate for depositories fell slightly as did the delinquency rate for thrifts. At the state level, Puerto Rico had the highest depository delinquency rate, while the lowest rate was in North Carolina. The market delinquency rate was highest in Maryland, while Alabama had the lowest market delinquency rate.

A stagnant economy and growing unemployment have adversely impacted the Miami economy this year, placing it at the top of the delinquency rankings. Even without the economic problems, the large number of purchase loans and high loan-to-value ratios contribute to much higher default risk on loans in the Miami area.

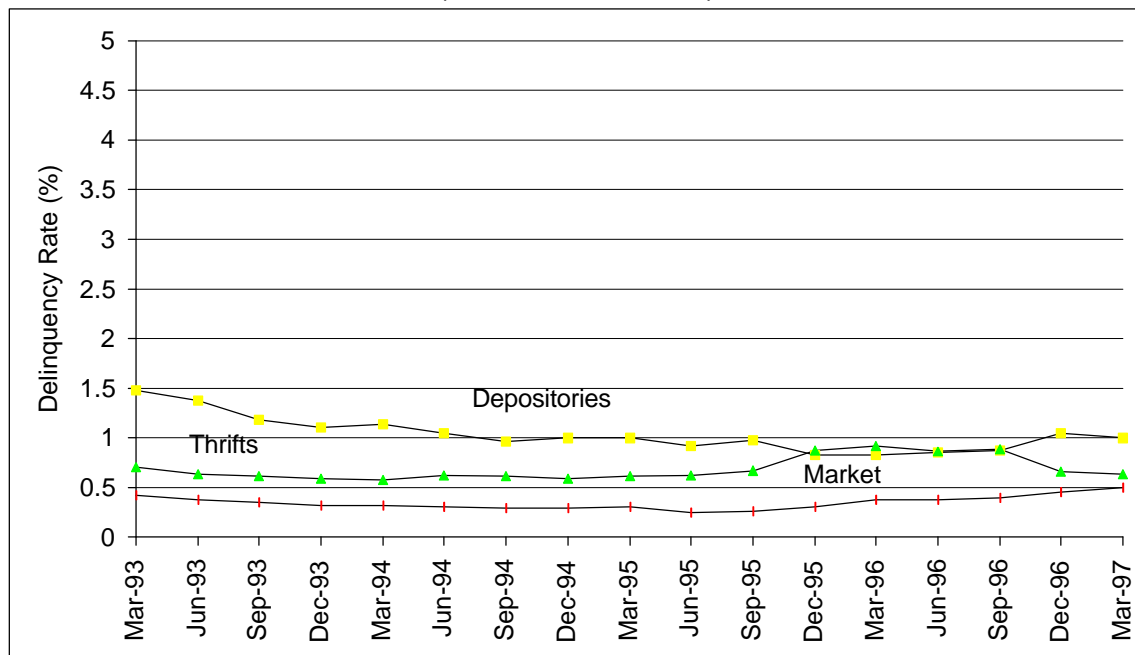
**Southeast Region**  
Seriously Delinquent Rate  
by Dollar Value  
(Source: MIC, TFR)



## Central Region Recent Developments

The delinquency rate for the market increased slightly in the Central Region between December 1996 and March 1997, while the delinquency rate for depositories fell slightly. Thrifts experienced a small decline in the delinquency rate. At the state level, Tennessee had the highest depository delinquency rate, while the lowest rate was in Michigan. The same was true for the market delinquency rates by state.

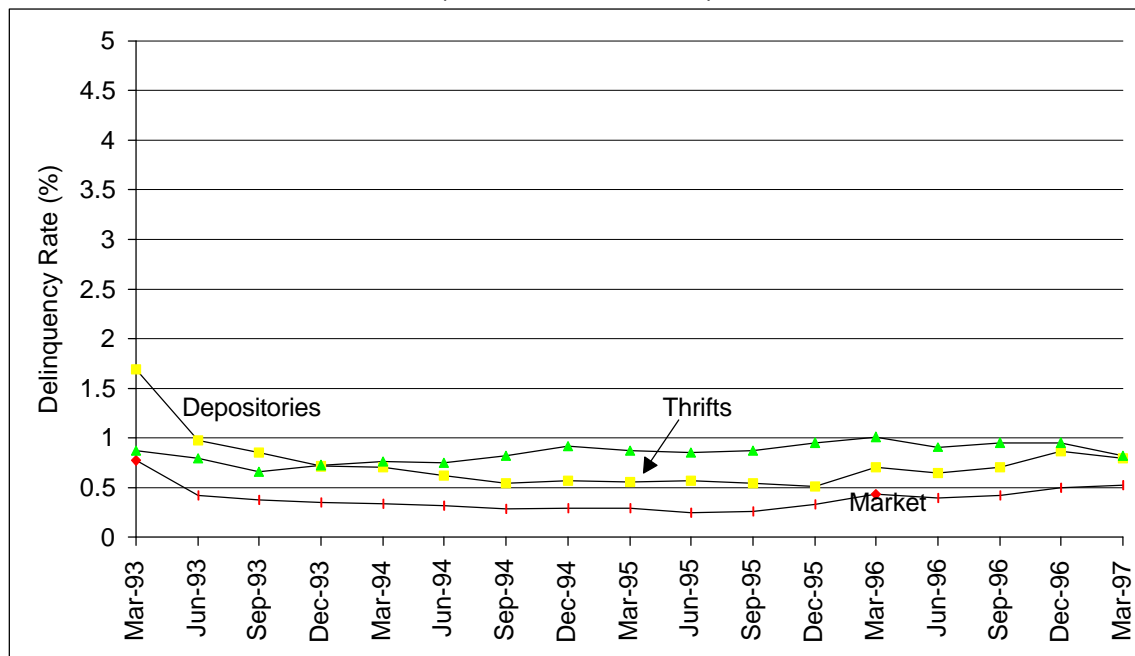
### Central Region Seriously Delinquent Rate by Dollar Value (Source: MIC, TFR)



## Midwest Region Recent Developments

The delinquency rate for the market rose slightly in the Midwest Region between December 1996 and March 1997. Over the same period, the delinquency rate for depositories fell slightly. There was also a small decline in the delinquency rate for thrifts. At the state level, Mississippi had the highest depository delinquency rate, while the lowest rate was in North Dakota. The market delinquency rate was highest in Louisiana, while Nebraska had the lowest market delinquency rate. According to the April 1997 issue of the FDIC's *Survey of Real Estate Trends*, the Midwest Region experienced improvements in residential markets, but not to the same extent as the Northeast Region.

**Midwest Region**  
Seriously Delinquent Rate  
by Dollar Value  
(Source: MIC, TFR)



## West Region Recent Developments

The delinquency rate for the market rose slightly in the West Region between December 1996 and March 1997. As was the case in the other OTS Regions, the delinquency rate for depositories fell slightly as did the delinquency rate for thrifts. At the state level, Hawaii had the highest depository delinquency rate, while the lowest rate was in Oregon. The market delinquency rate was highest in California, while Oregon also had the lowest market delinquency rate.

Substantially greater real estate activity in parts of California created a high demand for purchase loans as evidenced by multiple full-price offers being made on the first day for the most desirable properties on the residential housing market. Also, for the first time this decade, the serious delinquency rate on conventional mortgages in Southern California fell. The Riverside-San Bernadino metropolitan area continued to post the highest delinquency rate, while the delinquency rate for Los Angeles was similar to the national rate.

**West Region**  
Seriously Delinquent Rate  
by Dollar Value  
(Source: MIC, TFR)

